

Occupational, industry, and geographic exposure to artificial intelligence: A novel dataset and its potential uses

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Abstract

We create and validate a new measure of an occupation's exposure to AI that we call the AI Occupational Exposure (AIOE). We use the AIOE to construct a measure of AI exposure at the industry level, which we call the AI Industry Exposure (AIIE) and a measure of AI exposure at the county level, which we call the AI Geographic Exposure (AIGE). We also describe several ways in which the AIOE can be used to create firm level measures of AI exposure. We validate the measures and describe how they can be used in different applications by management, organization and strategy scholars.